

CLAIMS

What is claimed is:

1. A system for testing an overhead traveling vehicle, the system comprising:
a test fixture for supporting the overhead traveling vehicle during analysis in a stationary state, the test fixture including a rotatable bearing set for rotatably engaging a wheel of the overhead traveling vehicle during testing; and
a data collector for collecting data regarding an operation parameter of the overhead traveling vehicle.
2. The system of claim 1, wherein the rotatable bearing set is mounted to a rail.
3. The system of claim 2, wherein the rail is C-shaped, and the rotatable bearing set is positioned in a first extremity of the rail.
4. The system of claim 3, wherein the rail further includes an opening in a second extremity thereof over the bearing set.
5. The system of claim 4, wherein the data collector includes one of a handheld tachometer and a handheld optical sensor, positionable in the opening to observe the wheel.

6. The system of claim 1, wherein the data collector further comprises a data analyzer for analyzing the operation parameter of the overhead traveling vehicle.
7. The system of claim 6, wherein the test fixture further includes a reflective section and the overhead traveling vehicle includes an optical sensor for interaction with the reflective section, and wherein the operation parameter includes a reading of the optical sensor.
8. The system of claim 1, wherein the test fixture further includes a reflective section and the overhead traveling vehicle includes at least one optical sensor for use with the reflective section.
9. The system of claim 8, wherein the operation parameter includes a reading of the optical sensor.

10. A test fixture for supporting an overhead traveling vehicle for testing, the test fixture comprising:

a rotatable bearing set for rotatably engaging a wheel of the overhead traveling vehicle such that the wheel can rotate but the overhead traveling vehicle remains stationary; and
a raised support for supporting the rotatable bearing set.

11. The test fixture of claim 10, wherein the raised support includes a rail, and the rotatable bearing set is mounted in an opening in the rail.

12. The text fixture of claim 11, wherein the rail is C-shaped, and the rotatable bearing set is mounted in a lower extremity of the C-shaped rail.

13. The test fixture of claim 12, wherein the C-shaped rail further includes an opening in an upper extremity thereof over the rotatable bearing set for a data collector.

14. The test fixture of claim 10, further comprising a reflective section on the rail for interaction with an optical sensor of the overhead traveling vehicle.

15. The test fixture of claim 14, wherein the reflective section includes a plurality of tape lanes, each lane for interaction with a different optical sensor of the overhead traveling vehicle.

16. A method of calibrating an overhead traveling vehicle, the method comprising:
- supporting the overhead traveling vehicle on a test fixture, in a stationary state, by rotatably supporting each wheel of the overhead traveling vehicle with a rotatable bearing set including a pair of rotatable bearings;
- operating a portion of the overhead traveling vehicle; and
- adjusting a control of the overhead traveling vehicle to calibrate the overhead traveling vehicle.
17. The method of claim 16, wherein the test fixture includes a rail substantially similar to that which the overhead traveling vehicle is configured to operate on.
18. The method of claim 16, wherein the test fixture includes a reflective section for interaction with an optical sensor of the overhead traveling vehicle, and wherein the operating step includes activating the optical sensor and the adjusting step includes adjusting a control of the optical sensor.
19. The method of claim 16, wherein the operating step includes driving each wheel with a respective servomotor, and the adjusting step includes adjusting at least one servomotor control.

20. The method of claim 16, wherein the adjusting step includes calibrating the overhead traveling vehicle to have an operation parameter that substantially matches that of a replaced overhead traveling vehicle.